

Safety Data Sheet

Section 1: Chemical Product and Company Identification

Chemical Name: Proteinase K, from Tritirachium album

Product Number: abs9118

Company Name: Absin Bioscience (Shanghai) Co., Ltd.

Company Address: Building 18, No. 58, Xinhao Road, Pudong New Area, Shanghai

Telephone: 021-38015121

Email Address: www.absin.cn

Recommended and Restricted Use: For industrial and research purposes only.

Section 2: Hazards Identification

Emergency Overview:

Freeze-dried powder.

Causes skin irritation.

Causes serious eye irritation.

Inhalation may induce allergic or asthmatic reactions, or respiratory distress.

May cause respiratory tract irritation.

Seek medical advice.

Present this Safety Data Sheet to the attending physician.

If inhaled:

Remove the casualty to fresh air.

If breathing ceases, administer artificial respiration.

Seek medical attention immediately.

In case of skin contact:

Wash thoroughly with soap and copious amounts of water.

Seek medical advice.

In case of eye contact:

Rinse continuously with plenty of water for at least 15 minutes.

Seek medical attention promptly.

If ingested:

Do not administer any substance by mouth to an unconscious person.

Rinse mouth with water.

Seek medical advice.

GHS Hazard Classification

Skin Corrosion/Irritation (Category 2), H315

Serious Eye Damage/Eye Irritation (Category 2A), H319

Respiratory Sensitization (Category 1), H334

Specific Target Organ System Toxicity (Single Exposure) (Category 3), Respiratory tract, H335

For full text of hazard statements (H-) mentioned in this section, see Section 16.

GHS Label Elements, Including Precautionary Statements

Pictogram



Signal word: Danger

Hazard Statements

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

Precautionary Statements

Prevention

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective eye/face protection.

P280: Wear protective gloves.

P284: Wear respiratory protection [in insufficient ventilation].

Response

P302 + P352: IF ON SKIN: Wash with plenty of water.

P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal

P501: Dispose of contents/container to an approved waste disposal plant.

Physical and Chemical Hazards

No physical or chemical hazards identified based on available information.

Health Hazards

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

Environmental Hazards

No environmental hazards identified based on available information.

Other Hazards

None

Section 3: Composition/Information on Ingredients

Substance / Mixture: Substance

Substance

Common Name: Endopeptidase K

CAS No.: 39450-01-6

EC No.: 254-457-8

Index No.: 647-014-00-9

Hazardous Ingredients

Component	Classification	Concentration
Proteinase K	Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 2A; Respiratory sensitization Category 1; Specific target organ system toxicity (single exposure) Category 3; H315, H319, H334, H335	≤100%

The full text of the health instructions (H-) mentioned in this section can be found in Section 16.

Section 4: First Aid Measures

Necessary first - aid measures describe general recommendations

Consult a doctor. Show this Safety Data Sheet to the doctor who arrives at the scene.

Inhalation

If inhaled, move the patient to fresh air. If breathing stops, perform artificial respiration. Consult a doctor.

Skin contact

Wash with soap and plenty of water. Consult a doctor.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.

Ingestion

Do not give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.

The most important symptoms and health effects

The most important known symptoms and effects have been described on the label (see section 2.2) and/or in section 11.

Instructions and directions for timely medical treatment and any special treatment required:

No data available

Special hints for doctors: No data available.

Section 5: Fire-Fighting Measures

Extinguishing media

Firefighting methods and extinguishing agents

Use water mist, alcohol-resistant foam, dry powder or carbon dioxide for extinguishing.

Special hazards arising from this substance or mixture

Advice for firefighters

If necessary, wear a self-contained breathing apparatus when performing fire-fighting operations.

Section 6: Accidental Release Measures

Personal protective measures, protective equipment and emergency response procedures

Use personal protective equipment. Avoid generating dust. Avoid inhaling vapors, mists or gases.

Ensure adequate ventilation. Evacuate personnel to a safe area. Avoid inhaling dust.

For personal protection, please see Section 8.

Environmental protection measures

Do not allow the product to enter the sewer system.

Containment, cleanup methods for leaked chemicals and disposal materials used

Do not generate dust when collecting and disposing. Sweep up and shovel up. Put into appropriate closed containers for treatment.

Reference to other sections

For disposal, please refer to Section 13.

Section 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid the formation of dust and aerosols. Provide appropriate exhaust ventilation in places where dust is generated.

For preventive measures, please refer to section 2.2.

Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep containers tightly closed and store in a dry and well-ventilated area.

Recommended storage temperature: -20 °C.

Section 8 Exposure Controls/Personal Protection

Occupational Exposure Limits

Hazardous Components and Occupational Exposure Limits

Does not contain substances with occupational exposure limits.

Exposure Controls

Adequate Technical Controls

Operate in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of work. Personal Protective Equipment

Eye and Face Protection

Face shield and safety glasses. Please use equipment that has been tested and approved according to official standards such as NIOSH (USA) or EN 166 (EU) for eye protection.

Skin Protection

Wear gloves when handling. Gloves must be inspected before use. Use an appropriate method to remove gloves (do not touch the outer surface of the gloves) to avoid any contact of skin with this product. After use, dispose of contaminated gloves carefully in accordance with relevant laws, regulations and effective laboratory rules and procedures. Wash and dry hands thoroughly.

The selected protective gloves must comply with EU Directive 89/686/EEC and the EN 376 standard derived from it. For full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Solvent penetration time: 480 minutes

Tested substance: Dermatril® (KCL 740 / Aldrich Z677272, specification M)

For splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Solvent penetration time: 480 minutes

Tested substance: Dermatril® (KCL 740 / Aldrich Z677272, specification M)

Data source: KCL GmbH, D-36124 Eichenzell, telephone +49 (0)6659 87300, e-mail sales@kcl.de, test method EN374

If applied in solvent form, mixed with other substances, or applied under conditions different from those specified in EN 374, contact the supplier of EC-approved gloves. This recommendation is advisory only, and must be evaluated and confirmed by an industrial hygiene expert familiar with the specific circumstances of our customer's intended use. It should not be construed as approval of a method for any specific use case.

Body Protection

Full chemical-resistant work clothing. The type of protective equipment must be selected based on the concentration and quantity of hazardous substances in the specific workplace.

Respiratory Protection

If exposure to a hazardous environment is necessary, use a P95 (USA) or P1 (EU, UK 143) particulate respirator. For higher levels of protection, use an OV/AG/P99 (USA) or ABEK-P2 (EU, UK 143) gas mask canister.

Respirators and their components must be tested and approved by government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure

Do not allow the product to enter the sewer system..

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance and properties: Form: powder, lyophilized

Odor: No data available

Odor threshold: No data available

pH value: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available

Vapor density: No data available

Density/relative density: No data available

Water solubility: No data available

n-octanol/water partition coefficient: No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Other safety information

No data available

Section 10 Stability and Reactivity

Stability

Stable under the recommended storage conditions.

Hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible substances

Strong oxidizing agents

Hazardous decomposition products

In case of fire, it will decompose to produce harmful substances. - The properties of the decomposed

product are unknown. Other decomposition products - No data available

In case of fire: See Section 5 Fire-fighting measures.

Section 11 Toxicological Information

Information on toxicological effects: Acute toxicity

No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No data available

Specific target organ system toxicity (single exposure): May cause respiratory tract irritation.

Specific target organ system toxicity (repeated exposure): No data available

Inhalation hazard: No data available

Additional information

Toxic Substances Control Act (TSCA) Chemical Substance Inventory: No data available

Long-term or frequent exposure may lead to: asthma, lung - irregularities - based on human evidence

Section 12 Ecological Information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulation potential

No data available

Mobility in soil

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No data available (Proteinase K)

Results and evaluation of PBT and vPvB

The PBT/vPvB assessment is not available because the chemical safety assessment was not required/conducted

Other adverse environmental effects

No data available.

Section 13 Disposal

Waste Disposal Method Products

Hand over the remaining and non-recyclable solutions to a licensed company for disposal. Solutions that are miscible or mixable with flammable solvents should be incinerated in a chemical incinerator equipped with post-combustion treatment and scrubbing functions.

Contaminated packaging materials

Dispose of them as unused products.

Section 14 Transportation Information

UN number

ADR/RID: - IMDG: - IATA-DGR: -

UN proper shipping name

ADR/RID: Non-dangerous goods

IMDG: Non-dangerous goods

IATA-DGR: Non-dangerous goods

Transport hazard class(es) / Transport hazard class(es)

ADR/RID: - IMDG: - IATA-DGR: -

Packaging group / Packaging group

ADR/RID: - IMDG: - IATA-DGR: -

Environmental hazards

European Land Transport Dangerous Goods Regulations / ADR/RID: No

International Maritime Dangerous Goods Code Marine Pollutant / IMDG Marine pollutant: No

Special precautions for user

International Air Transport Dangerous Goods Regulations / IATA-DGR: No

Please select appropriate transportation tools and corresponding transportation and storage conditions according to the nature of the chemicals. The transportation tools should be equipped with corresponding types and quantities of fire-fighting materials and leakage emergency treatment equipment. If road transportation is chosen, please drive according to the specified route.

Incompatible materials

Strong oxidants

Part 15 Regulatory Information

Special regulations/legislations applicable to the safety, health and environment of this substance or mixture

Information on the listing of product components in the following directories:

IECSC: Present in or conforming to the existing directory

Other regulations

Please note that waste disposal should also comply with local regulatory requirements.

Part 16 Other Information

The full text of the hazard statements mentioned in Sections 2 and 3 of the Safety Data Sheet:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Other information

The above information is believed to be correct but does not include all possible information and is provided only as a guide. The information in this document is based on our current knowledge and is applicable to this product for proper safety guidance. This information does not represent a guarantee of the product's properties. Absin Biotechnology Co., Ltd. shall not be liable for any damages arising from any operation or contact with the above products. For more terms of use, please refer to the reverse side of the invoice or packaging slip. For more sales terms and conditions, please refer to www.absin.cn and/or the reverse side of the invoice or packing list.